

Individualized Behavioral Health Monitoring Tool, Phase II

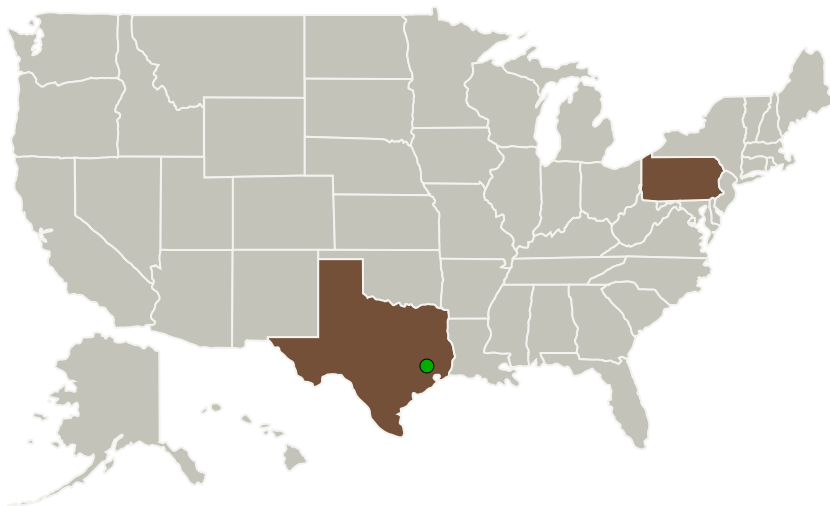
Completed Technology Project (2011 - 2013)



Project Introduction

Given the extended duration of future missions and the isolated, extreme and confined environments, there is the possibility that behavioral conditions and mental disorders (DSM-IV-TR) will develop. The overarching goal of this project is to deliver an Individualized Behavioral Health Monitoring Tool that unobtrusively integrates all available behavioral measures collected during a mission to provide a dashboard of behavioral health indicators. These indicators will be placed within the context of quantitatively-tracked mission stressors to provide meaningful feedback allowing behavioral issues to be detected and mitigated at an early stage. The result of this project will be a system prototype that can be deployed in space analog environments (e.g., Mars 520 study, Antarctica) for validation testing and ultimately deployed in long-duration space exploration missions. The critical need for an Individualized Behavioral Health Monitoring Tool has been identified as a priority outlined in the BHP Integrated Research Plan (July 2009) gap BMED3. Phase II will achieve: (1) an Individualized Behavioral Health Monitor software interface; (2) a data integration system; (3) a trend and change detection algorithm; and (4) a countermeasure selection aid. The Technology Readiness Level at the end of Phase II will be TRL 6.

Primary U.S. Work Locations and Key Partners



Individualized Behavioral Health Monitoring Tool, Phase II

Table of Contents

Project Introduction	1
Primary U.S. Work Locations and Key Partners	1
Project Transitions	2
Organizational Responsibility	2
Project Management	2
Technology Maturity (TRL)	3
Technology Areas	3
Target Destinations	3

Individualized Behavioral Health Monitoring Tool, Phase II



Completed Technology Project (2011 - 2013)

Organizations Performing Work	Role	Type	Location
Pulsar Informatics Inc	Lead Organization	Industry	
● Johnson Space Center(JSC)	Supporting Organization	NASA Center	Houston, Texas

Primary U.S. Work Locations	
Pennsylvania	Texas

Project Transitions

**June 2011:** Project Start**June 2013:** Closed out**Closeout Documentation:**

- Final Summary Chart(<https://techport.nasa.gov/file/138986>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Pulsar Informatics Inc

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Daniel Mollicone

Co-Investigator:

Daniel Mollicone

Individualized Behavioral Health Monitoring Tool, Phase II

Completed Technology Project (2011 - 2013)



Technology Maturity (TRL)

Start: **3**
Current: **6**
Estimated End: **6**



Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
 - └ TX06.3 Human Health and Performance
 - └ TX06.3.3 Behavioral Health and Performance

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System